

ACCESSION NR: AT4040744

orbits. The satellites rapidly abandon the sphere of influence of Jupiter and assume heliocentric orbits. The motion of satellites V and VI was integrated for three revolutions and was stable for this interval of time. It is concluded that the region of stable motion for cases of elliptical orbits ( $e_0 = 0.5$ ) is determined by the condition  $a \leq 0.18$  a.u. Beginning with  $a = 0.2$  a.u. the satellite motion is unstable. It is shown graphically in the original that the motion of a material particle in the sphere of influence of Jupiter and outside the sphere can be investigated only by rigorous solution of the restricted three-body problem. The problem cannot be reduced to a two-body problem. Orig. art. has: 10 tables and 9 figures.

ASSOCIATION: Institut teoreticheskoy astronomii AN SSSR (Institute of Theoretical Astronomy AN SSSR)

SUBMITTED: 05Aug61

DATE SEL: 15Jul64

ENCL: 00

SUB CODE: AA

NO REF SOV: 002

OTHER: 000

Card 2/2

CHEBOTAREV, G.A.; MAKAROVA, Ye.N.

Preliminary orbital elements of the first Soviet spaceship  
(1960  $\Sigma_3$ ). Muz.sta.opt.nabl.isk.sput.Zem. no.27:36-41 '62.

(MIRA 15:12)

1. Institut teoreticheskoy astronomii AN SSSR.  
(Space vehicles)

CHEBOTAREV, G.A.; MAKAROVA, Ye.N.

Preliminary orbital elements of the cabin (1960ξ<sub>3</sub>) of the fourth  
Soviet artificial satellite. Muz.sta.opt.nahl.isk.spat.Zem.  
no.28:ll-13 '62. (MIRA 15:12)

1. Institut teoreticheskoy astronomii AN SSSR, otdel prikladnoy  
nebesnoy mekhaniki.  
(Artificial satellites—Tracking)

CHEBOTAREV, G.A.; MAKAROVA, Ye.N.

Preliminary orbit elements of the first Soviet orbital space-  
ship (1960). Biul. sta. opt. nabl. isk. sput. Zem. no.30:  
19-22 '62. (MIRA 16:6)

1. Institut teoreticheskoy astronomii AN SSSR, otdel prikladnoy  
nebesnoy mehaniki.  
(Artificial satellites—Orbits)

L 27213-65 ARG/EMT(d)/FBD/FSF(h)/FSS-2/EMT(l)/FBO/EEG(a)/EVF(m)/FS(v)-3/EEC(j)/EED-2/  
TT/WJ/ EEC(k)-2/EVG(s)-2/FCS/EEC(r)/EVG(v)/EVF(c)/EVA(d)/EPR/EEC(t)/T-2/EVP(h)/  
GW/WR EEC(c)-2/EED-2/FCS(k) Pn-4/Po-4/Pd-1/Pe-5/Pg-4/Pac-4/Pg-4/  
ACCESSION NR: AT5003542Ps-4/Pae-2/Pi-4/Pk-4/Pw-4/Pl-4 S/2816/63/000/032/0024/0027

AUTHORS: Chebotarev, G. A.; Makarova, Ye. N.

TITLE: Preliminary orbital elements of the first Soviet spacecraft (1960  $\varepsilon_2$ ) for  
July 1961 to August 1962

SOURCE: AN SSSR. Astronomicheskiy sovet. Byulleten' stantsiy opticheskogo  
nablyudeniya iskusstvennykh sputnikov Zemli, no. 32, 1963, 24-27

TOPIC TAGS: artificial satellite, satellite orbit, satellite tracking, 1960  $\varepsilon_2$ ,  
satellite, BESM 2 calculator

ABSTRACT: The equatorial elements and the secular perturbations of the orbit are tabulated, part of which is given on the Enclosure. They were obtained by approximate visual observation. Because the orbit was nearly circular, the elements  $M^0$  and  $\omega$  could not be accurately determined, and  $\lambda_0$  is therefore used instead. This is computed from the ascending angle of the orbit. In addition, the values of  $h = e \sin \omega$  and  $\lambda = e \cos \omega$  are given. The value of  $\sigma$  was determined from the average error in representing observations of the elements at proper times. The maximal deviation between observation and computation may reach 3°. The orbital elements have been referred to the true equator and to the equinoctial time  $t_0$ .

Card 1/3

L 27213-65

ACCESSION NR: AT5003542

All calculations were made on a BESM-2 calculator at the Leningradskoye otdeleniye Matematicheskogo instituta AN SSSR (Leningrad Division of the Mathematical Institute AN SSSR) by personnel of the Institut teoreticheskoy astronomii AN SSSR (Institute of Theoretical Astronomy, AN SSSR): I. I. Belozemtseva, V. N. Stratilatova, M. T. Lvuleyeva, and V. A. Kulikova under the general direction of Ye. N. Makarova. Orig. art. has: 1 table.

ASSOCIATION: Institut teoreticheskoy astronomii AN SSSR Otdel prikladnoy nebesnoy mekhaniki (Institute of Theoretical Astronomy AN SSSR, Division of Applied Celestial Mechanics)

SUBMITTED: 18Feb63

ENCL: 01

SUB CODE: SV, DC

NO REF Sov: 000

OTHER: 000

Card 2/3

L 27213-65

ACCESSION NR: AT5003542

ENCLOSURE: 01

Preliminary orbital elements of the first Soviet spacecraft (1960  $\Sigma_2$ ) for  
July 1961 to August 1962 and their secular perturbations

$t_0^{\text{UT}} = 0\text{h}$	$\pi$	$i$	$\lambda_0$	$\lambda$	$h$	$\bar{n}_0$	$\omega$	$e$
<u>1961</u>								
July 08	308°98	65°00	81°98	-0°0392	-1°1133	5605°39	268°	0.0194
.....								
August 22	304.94	65.00	5.84	+0.0708	+0.1607	5824.06	66	0.0031
<u>a</u> (earth radians)								
1.06188	0.4	-1.88	-0.43	-3.41	-0.0059	+0.0015	+10.72	-0.43
.....								
1.03512	0.4	-2.05	-0.47	-3.73	-0.0011	-0.0047	140.44	+20.92

Card 3/3

L 27209-65 EEC-2/EWT(d)/RBD/ SF(h)/FSS-2/EWT(l)/EWP(m)/FS(y)-3/EEC(k)-2/ENG(s)-2/  
EWC(w)/EWP(c)/EW(d)/EEC(t)/T/EWT-2/EEC(c)-2 Pn-4/Po-4/Pd-1/Pe-5/  
Po-4/Pac-4/Pg-4/ 2/PI-4/TI-4 TT/TK/WP  
ACCESSION NR: A15003945 S/2016/63/000/032/0027/0028

AUTHORS: Chebotarev, G. A.; Makarova, Ye. N.

76  
B+ |

TITLE: Preliminary data on mean orbital elements for the capsule of the first  
Soviet spacecraft (1960  $\xi_3$ ) in June to September 1962

SOURCE: AN SSSR. Astronomicheskiy sovet. Byulleten' stantsiy opticheskogo  
nablyudeniya iskusstvennykh sputnikov Zemli, no. 32, 1963, 27-28

TOPIC TAGS: spacecraft, satellite orbit, visual tracking/ 1960  $\xi_3$  satellite,  
BESM 2 computer

ABSTRACT: A table is furnished with the equatorial elements and secular pertur-  
bations of the capsule of the first Soviet spacecraft during the period June-  
September 1962. These elements were obtained from approximate visual observations.  
Since the orbit is nearly circular,  $M_0$  and  $\omega$  are not accurately determined, and  
the tables therefore contain, as well as  $M_0$ , values for mean longitude  $\lambda_0$  computed  
from the ascending angle of the satellite orbit; i.e.,  $\lambda_0 = M_0 + \omega$ . The table  
also contains values of  $h$  and  $\lambda$ , determined thus:  $h = e \sin \omega$  (in degrees) and  
 $\lambda = e \cos \omega$  (in degrees). The value of  $\sigma$  determines the average error in presenting  
Card 1/2

L 27209-65

ACCESSION NR: AT5003543

observations on a corresponding system of elements at any given interval of time. The maximal deviation between observation and computation may reach 36. The orbital elements are referred to the true equator and the equinoctial time  $t_0$ . All computations were made on a rapid BESM-2 computer at the Leningradskoye otdeleniye Matematicheskogo instituta AN SSSR (Leningrad Division of the Mathematical Institute, AN SSSR) by the workers of the Institute of Theoretical Astronomy AN SSSR: I. I. Belozemtseva, V. N. Stratilatova, M. T. Lyuleyeva, and V. A. Kulikova. Orig. art. has: 1 table.

ASSOCIATION: Institut teoreticheskoy astronomii AN SSSR Otdel prikladnoy nebesnoy mekhaniki (Institute of Theoretical Astronomy AN SSSR, Division of Applied Celestial Mechanics)

SUBMITTED: 04Jan63

ENCL: 00

SUB CODE: SV, DC

NO REF SOV: 000

OTHER: 000

Card 2/2

I-32006-65 FSS-2/FSF(h)/EWG(j)/EEC(a)/EWT(1)/EWG(r)/EEC(j)/FS(v)-3/EWP(m)/EEC(r)/  
EWG(s)-2/ENA(d)/EWG(v)/T-2/EEC(t)/EWG(a)/EWG(c) Po-4/Fq-4/Pe-5/Pae-2/Pg-4/Pl-4

ACCESSION NR: AR5005112 TT/DD/GW

S/0313/64/000/007/0009/0009

76  
2

SOURCE: Ref. zh. Issl. kosm. prostr. Otd. vyp., Abs. 7.62.71.

AUTHORS: Chebotarev, G. A.; Makarova, Ye. N.

TITLE: Preliminary average orbit elements of the cabin of the first Soviet space  
ship (1960 e3) for October-December 1962

CITED SOURCE: Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli, no. 35,  
1962 (1963), 31

TOPIC TAGS: artificial earth satellite, satellite orbit eccentricity, secular  
orbit, equatorial orbit, spacecraft cabin

TRANSLATION: The equatorial elements and secular perturbations of the orbit of  
the artificial satellite 1960 e3 in October-December 1962 are presented in  
tabular form.

SUB CODE: SV

ENCL: 00

Card 1/1

I 32008-55 FSS-2/PSF(h)/ZEC(a)/EMT(1)/EEC(j)/FS(v)-3/EWP(k)/EEO(r)/EWG(s)-2/EWA(d)/  
EWG(v)/EEO(t) Po-4/Pq-4/Pe-5/Pae-2/Pg-4/Pi-4 TT/GW  
ACCESSION NR: AR5005113 S/0313/64/000/007/0009/0009

SOURCE: Ref. zh. Issl. kosm. prostr. Otd. vyp., Abs. 7.62.72

AUTHORS: Chebotarev, G. A.; Makarova, Ye. N.

TITLE: Preliminary orbit elements of the Soviet artificial earth satellite  
'Kosmos-8' (1962  $\alpha_1$ ) and its vehicle rocket (1962  $\alpha_2$ )

CITED SOURCE: Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli, no. 35,  
1962 (1963), 31-33

TOPIC TAGS: artificial earth satellite, satellite orbit eccentricity, secular  
orbit, equatorial orbit, satellite vehicle

TRANSLATION: The equatorial elements and secular perturbations of the satellite  
orbits of 1962  $\alpha_1$  and its vehicle rocket 1962  $\alpha_2$  in September-December 1962 are  
presented in tabular form.

SUB CODE: SV

ENCL: 00

Card 1/1

ACCESSION NR: AT4001194

S/2511/63/009/001/0001/0010

AUTHOR: Chebotarev, G. A.

TITLE: The motion of artificial earth satellites in orbits with small eccentricities

SOURCE: AN SSSR. Inst. teor. astron. Byulleten', v. 9, no. 1, 1963, 1-10

TOPIC TAGS: artificial earth satellite motion, small eccentricity orbit, orbital element perturbation, first order perturbation, integration constant determination, orbital element refinement

ABSTRACT: The perturbations of a nearly-circular artificial earth satellite orbit are considered and symbolic equations are obtained for the first-order perturbations, accurate to the first power of the eccentricity inclusive. The question of calculating more precisely the elements of a nearly-circular orbit is also considered.

Card 1/2

ACCESSION NR: AT4001194

A special section is devoted to the determination of the integration constants. Orig. art. has: 43 formulas.

ASSOCIATION: Inst. teor. astron. AN SSSR (Institute of Theoretical Astronomy, AN SSSR)

SUBMITTED: 14Feb62

DATE ACQ: 25Nov63

ENCL: 00

SUB CODE: AS

NO REF SOV: 003

OTHER: 000

Card 2/2

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, G.A.

Aleksandr Marianovich Gishitskii, 1878-1956. Biul.Inst.teor.astron.  
9 no.3:216-218 '63. (MIRA 16:10)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

CHEBOTAREV, G.A.; BOZHKOVA, A.I.

Motion of artificial satellites of Mars, Venus and Mercury in the  
sphere of action of the planet. Biul.Inst.teor.astron. 9:169-184  
'63. (MIRA 16:10)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, G.A., prof.; YEFREMOV, Yu.N.

Plenums of the Committees of the Astronomical Council. Vest.  
AN SSSR 33 no.10:105-107 O '63. (MIRA 16:11)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

L 37672-65 FSF(h)/ENT(l)/FS(v)-3/EEC(k)-2/EWA(d) - Pao-2 - GW	
ACCESSION NR:	AT5004162 S/3126/63/000/002/0064/0079
AUTHOR: Czebotariew, G. A. (Chebotarev, G. A.); Makarowa, J. N. (Makarova, Ye. N.); Soczylina, A. S. (Soczilina, A. S.)	
TITLE: Determination of orbits and computation of the ephemerides of artificial earth satellites	
SOURCE: Nablyudenija iskusstvennykh sputnikov Zemli, no. 2, 1963. Warsaw, PAN, 1963, 64-79	
TOPIC TAGS: artificial earth satellite, artificial satellite observation, satellite ephemeris, artificial satellite orbit	
ABSTRACT: Basic formulas intended for reference use at artificial earth satellite observation stations are reviewed. Section 1 discusses the two-body problem and the use of Kepler's laws; Section 2 presents the Gauss method for preliminary determination of artificial earth satellite orbits in the modification proposed by G. M. Bazhenov ( <i>Byulleten' Instituta teoreticheskoy astronomii</i> , Vol. VII, No. 10, 93, 1960); Section 3 gives the Laplace method for determining the initial orbit as developed by French astronomers (F. Barbier, <i>Proceedings of the Second International Space Science Symposium, Florence, 1962</i> , p. 83 and J. Kovalevsky,	
Card 1/8	

L 37672-65  
ACCESSION NR: AT5004162

O

*Space Science Reviews, Vol. I, No. 2, October, 1962, p. 313 and Space Research, Vol. II, 1962, p. 91;* Section 4 gives a discussion of the influence of the earth's flattening on the motion of an artificial satellite, including the Lagrange formulas; Section 5 is devoted to first-order perturbations for the case of small eccentricities where the Lagrange Formulas are not applicable and based on work by G. A. Chebotarev (*Byull. ITA*, Vol. IX, No. 1, 104, 1963); Section 6 discusses first order perturbations using a variant of the Lagrange formulas as presented by Y. Kozai (*Astronomical Journal*, Vol. 64, No. 9, 1959); Section 7 presents formulas for use in improvement of an orbit on the basis of the materials in the above-cited paper by Chebotarev; Section 8 considers orbital improvement with formulas for use in a general case; Section 9 very briefly considers the influence of atmospheric resistance on satellite motion; Section 10 discusses the appropriate coordination system to be used in reduction of observations; Section 11 gives a procedure for computation of emphemerides of artificial satellites as presented by A. S. Sochilina (*Byull. ITA*, VIII, No. 2, 95, 1961). Orig. art. has: 100 formulas.

ASSOCIATION: none

Cord 273

ACCESSION NR: AP3007733

S/0033/63/040/005/0812/0818

AUTHOR: Chebotarev, G. A.

TITLE: Gravitational spheres of the large planets, moon and sun

SOURCE: Astronomicheskij zhurnal, v. 40, no. 5, 1963, 812-818

TOPIC TAGS: astronomy, planet, moon, sun, gravity, gravitational sphere, artificial earth satellite, sputnik

ABSTRACT: A restricted three-body problem for the Sun, a planet and an artificial satellite (sputnik) is considered. The heliocentric equations of motion for the sputnik (with the planet as the perturbing body) and for the planet are derived. Then, considering a system of coordinates attached to the planet's center, whose axes are parallel to the heliocentric coordinate system, the equations of motion for the sputnik in the former coordinate system are derived. With the Sun as the central body, let  $R$  be the acceleration it imparts to the sputnik and let  $F$  be the perturbing acceleration caused by the planet's attraction. With the planet as the central body, let  $R_1$  be the acceleration it imparts to the sputnik and let  $F_1$  be the perturbing acceleration caused by the Sun's attraction. Expressions are obtained for  $R$ ,  $F$ ,  $R_1$ , and  $F_1$  in terms of the coordinates of the bodies (in the appropriate system), the planetary mass, the radii of the planet and the sputnik,

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ACCESSION NR: AP3007733

and the angle made at the planet's center by the directions to the centers of the Sun and the sputnik. In terms of these four quantities, the following values are obtained for the nine large planets, the Moon and the Sun: (1) the minimum and maximum values of  $\Delta_1$  (the radius of the sphere of influence); (2) the minimum and maximum values of  $\Delta_2$  (the radius of the gravisphere); and (3) the value of units and in millions of kilometers, using the equivalence: 1 a.u. = 149.6 million km. Orig. art. has: 8 tables and 34 formulas.

ASSOCIATION: INSTITUT TEORETICHESKOY ASTRONOMII AKADEMII NAUK SSSR (Institute of Theoretical Astronomy, Academy of Sciences, SSSR)

SUBMITTED: 02Jan63

DATE ACQ: 22Oct63

ENCL: 00

SUB CODE: AS

NO REF Sov: 001

OTHER: 000

Card: 2/2

CHEBOTAREV, G.A.; BOZHKOVA, A. I.

Movement of polar satellites of Mars, Venus, and Mercury.  
Biul. Inst. teor. astron. 9 no. 6:388-393 '64. (MIRA 17:9)

L 10780-65 EWT(1)/ENG(v)/SEC(t) Pe-5/Pae-2 AFWL/SSD/AFETR/BSB/ESD(t) GW

ACCESSION NR: AP4047162

S/0033/64/041/005/0983/0989

AUTHOR: Chebotarev, G. A.

TITLE: Concerning the limits of the solar system

SOURCE: Astronomicheskiy zhurnal, v. 41, no. 5, 1984, 983-989

TOPIC TAGS: solar system, galactic nucleus, Galaxy, astrophysics, comet, cometary orbit, hyperbolic cometary orbit

ABSTRACT: This article considers the problem of the motion of a body of small mass (termed here a "comet") in the outer region of the solar system. The gravitational field of the Galaxy as a whole is considered as the constantly acting perturbing factor. It is assumed that the motion of the sun around the center of the Galaxy conforms to Kepler's laws, and the entire mass of the Galaxy is assumed to be concentrated at its center. Solution of the problem of the actual motion of a comet within the limits of the solar system is based on numerical integration of the presented equations of motion; 5 orbits are considered (in each case both direct and retrograde motion are analyzed). It is concluded that the dynamic limits of the solar system can be defined by the following numerical values for the maximum radii of stable orbits: 1) direct motion, maximum radius of stable orbit  $R_1 = 230,000$  a.u.; retrograde motion, maximum radius of stable

Card 1/2

L 10780-65

ACCESSION NR: AP4047162

2

orbit  $R_2 = 100,000$  a.u. In the solar system direct motion is more stable than retrograde motion. (By stable motion of a comet is meant motion when the cometary orbit remains elliptical during several revolutions around the sun.) (Unstable motion is defined as motion when a comet, after one or two revolutions around the sun, assumes a hyperbolic orbit and forever abandons the solar system.) In the region of space 100,000-230,000 a.u. only direct stable motion of comets is possible. "All computations in this study were made by A. I. Bozhkova, scientific specialist at the Institute of Theoretical Astronomy, to whom the author expresses his thanks". Orig. art. has: 2 formulas, 10 figures and 10 tables.

ASSOCIATION: Institut teoreticheskoy astronomii, Akademiya Nauk SSSR (Institute of Theoretical Astronomy, Academy of Sciences, SSSR)

SUBMITTED: 04Feb84

ENCL: 00

SUB CODE: AA

NO REF SOV: 002

OTHER: 000

Card 2/2

CHEBOTAREV, G.A.

Boundaries of the solar system. Astron.zhur. 41 no.5:983-989  
S-0 '64.

1. Institut teoreticheskoy astronomii AN SSSR,

(MIRA 17:10)

CHEBOTAREV, G.A.; KIRPICHNIKOV, S.N

Study on the motion of artificial moon satellites. Biul. Inst.  
teor. astron. 10 no.2;109-117 '65. (MIRA 18:7)

CHEBOTAREV, Gleb Aleksandrovich; SUBBOTIN, M.F., otv. red.

[Analytic and numerical methods in celestial mechanics]  
Analiticheskie i chislennye metody nebesnoi mekhaniki.  
Moskva, Nauka, 1965. 366 p. (MIRA 18:9)

1. Chlen-korrespondent AN SSSR (for Subbotin).

ZHELEZNIK, M.B.; MAL'KOVA, A.G.; RUMYANTSEVA, L.I.; CHEBOTAREV, G.A.,  
prof., astv. red.

[Stellar positions and reduction constants for stars of the time  
service program for the epoch 1970.0.] Zvezdnye polozheniya i  
reduktionskiye postojannyye zvezd programmy sluzhby vremeni na  
epokhu 1970.0. [Leningrad, 1965]. 34 p. (Akademiiia nauk SSSR.  
Institut teoreticheskoi astronomii. Biulleten' vol.10, no.2.  
Supplement). (MIRA 18:7)

1. Direktor Instituta teoreticheskoy astronomii AM SSSR (for  
~~Chebotarev~~).

ACC NR: AR6016280 FSS-2/EMT(1)/EIP(m) TT/GW

SOURCE CODE: UR/0269/66/000/001/0014/0014

AUTHORS: Chebotarev, G. A.; Kirpichnikov, S. N.

TITLE: A study of the motion of artificial moon satellites

SOURCE: Ref. zh. Astronomiya, Abs. 1.51.102

REF SOURCE: Byul. In-ta teor. astron. AN SSSR, v. 10, no. 2, 1965, 109-117

TOPIC TAGS: lunar satellite, satellite orbit

54  
B

ABSTRACT: The authors review twenty different variants of orbits for fictitious moon satellites. The coordinates and velocities of the earth, moon, and sun at the moment  $t_0 = 1960$  October 24.0 were taken as initial data in all variants. The earth and sun were viewed as material points, while a uniformly rotating homogeneous tri-axial ellipsoid was taken as the figure of the moon. The integration of differential equations of motion was carried out according to the Runge-Kutta method with an automatic selection of the length of the step on a BESM-2 electronic computer. The results of the numerical integrations were tabulated. The authors claim that the motion of near equatorial moon satellites with direct movement is stable even in the case of orbits with great eccentricities. Instability arises with a magnitude of a large semiaxis equal to approximately 15 lunar radii. It is established that polar satellites have an unstable motion, so that after a small number of revolu-

UDC: 521.61

Card 1/2

L 45311-66

ACC NR: AR6016280

tions they fall to the lunar surface or go into a hyperbolic orbit. Equatorial satellites with a retrograde motion are the most stable. Instability arises only with a magnitude of a large semiaxis equal to approximately 25 lunar radii, the radius of the sphere of influence of the moon being equal to 38 lunar radii. R. Yeremenko [Translation of abstract]

SUB CODE: 03 22

mjs  
n/b

L 31462-66 ENT(1) CR  
ACC NR: AP6023113

SOURCE CODE: UR/0033/66/043/002/0435/0440

AUTHOR: Chebotarev, G. A.

ORG: Institute of Theoretical Astronomy, AN SSSR (Institut teoreticheskoy astronomii AN SSSR)

TITLE: Motion of comets in the outer regions of the solar system

SOURCE: Astronomicheskiy zhurnal, v. 43, no. 2, 1966, 435-440

TOPIC TAGS: comet, solar system, celestial body motion

ABSTRACT: A study has been made of the motion of a body of infinitely small mass ("comet") in the outer regions of the solar system. It is assumed that the galactic nucleus is the perturbing body. It is demonstrated that the stable motion of a comet (when  $e_0 = 0.6$ ) is possible at a distance of 80,000 a.u. from the sun. The limits of the cometary "cloud" are approximately 60,000-100,000 a.u. The author thanks A. I. Bozhkova, scientific colleague at the Institute of Theoretical Astronomy for [JPRS] making all the calculations in this work. Orig. art. has: 8 figures and 8 tables.

SUB CODE: 03 / SUBM DATE: 06Nov65 / ORIG REF: 002

Card 1/1 MC UDC: 521.7

CHEBOTAREV, G. M.

CHEBOTAREV, G. M.; DUSMATOV, S. S.; and BADALOV, S. T.

"Influence of Medium on the Composition and Form of Calcite Crystals,"  
Dokl. AN UzSSR, No 3, 39-43, 1953 (Uzbekistani resume)

The authors have studied the various crystalline forms of calcites which occur under various geological and physicochemical conditions from one of the deposits of Central Asia. The composition of the studied calcites, their color, specific gravity are due, up to a certain extent, to the composition of the containing rocks in which the crystallization of the mineral occurs. The form of the calcite crystals almost does not depend on their composition, but, in considerable degree, is due to the peculiarities of the chemistry of the medium in which they are formed.

RZhGeol. No 1, 1955

CHEBOTAREV, G.M.; CHEBOTAREVA, G.P.

Find of anthraxolite in the Uch-Kulach complex metal de-  
posit. Zap.Uz.otd.Vses.min.ob-va no.13:134-138 '59.  
(MIRA 13:7)

(Uzbekistan--Anthraxolite)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, G.M.

Eutaxitic structures of the ores of complex metal deposits in  
Uzbekistan. Zap. Uz. otd. Vses. min. ob-va no.16:71-79 '64.

(MIRA 18:6)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

CHEBOTAREV, G. N.

"The Solution in Closed Form of the Riemann Boundary Value Problem for a System of n Pairs of Functions." Cand Phys-Math Sci, Kazan' State U, Kazan', 1954. (RZhMat, Sep 54)

SO: Sum 432, 29 Mar 55

CHEBOTAREV, G. N.

USSR/Mathematics

Card : 1/1

Authors : Chebotarev, G. N.

Title : Solution of matrix equation  $e^B \cdot e^C = e^{B+C}$ 

Periodical : Dokl. AN SSSR, 96, Ed. 6, 1109 - 1112, June 1954

Abstract : It is known that the law governing the addition of exponents during multiplication  $e^B \cdot e^C = e^{B+C}$  is justifiable for commutative matrices. The author points out the error (omission of an entire class of such matrices) made by M. Frechet in his determination of the general matrix form and presents his own solution to the problem of the matrix equation. Four references.

Institution : ...

Presented by : Academician A. N. Kolmogorov, April 13, 1954

CHEBOTAREV, G. N.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress, Moscow, Jun-Jul '56,  
Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Mention is made of Kreyn, M. G.

There are 3 references, 2 of which are USSR, and 1 English.

Chebotarev, G. N. (Kazan'). Some Matrix Equations and Their  
Application for Solving in Closed Form Riemann Boundary Problem  
For Pair Function Systems and for Solving of Systems of Linear  
Differential Equations.

110-111

Chelidze, V. G. (Tbilisi). Some Summation Methods  
of Multiple Series.

111

Chibrikova, L. I. (Kazan'). On Riemann Boundary Problem  
of Automorphic Functions.

111

Shaginyan, A. L. (Yerevan). The Velocity of Polynomial  
Approximation on a Closed Set.

111-112

Mention is made of Lavrent'yev, M. A.

There is 1 USSR reference.

CHEBOTAREV, G.N.

Particular indexes for the Riemann boundary value problem with a  
triangular matrix of the second order. Usp.mat.nauk 11 no.3:199-  
202 My-Je '56.  
(Riemann surfaces) (Matrices)

(MLRA 9:9)

CHEBOTAREV, G.N.

Closed-form solution for a system of two ordinary linear differential equations. Trudy KAI 31:107-111 '56. (MLRA 10:5)  
(Differential equations, Linear)

**CHEBOTAREV, G.N.**

Solution of Riemann's boundary problem in the closed form for a  
system of n-pairs of functions. Uch. zap. Kaz. un. 116 no.4:31-  
58 '56. (MIR 10:4)  
(Functions of complex variables)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, G.N. (Kazan')

Matrix equation. Trudy KAI 38:93-101 '58.  
(Matrices)

(MIRA 16:8)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

16(1)

AUTHORS: Bogdanov, Yu.S., Chebotarev, G.N. SOV/140-59-4-5/26

TITLE: On Matrices Commutating With Their Derivative

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Matematika, 1959,  
Nr 4, pp 27 - 37 (USSR)

ABSTRACT: A matrix is called conservative, if it maintains the Jordan normal form on an interval, i.e. if it possesses the same Segre characteristic in every interval point. The authors consider conservative matrices  $A(t)$  which commute with their derivative  $A'(t)$ .

Theorem : Let the matrix  $A(t)$  be everywhere differentiable or absolutely continuous, conservative and commute with its derivative on the interval  $(a,b)$ ; let the elementary divisors of  $A(t)$  be relative prime. Then  $A(t)$  is functional-commutative (i.e. their values commute with each other in two arbitrary interval points).

A second theorem contains the statement on conservative everywhere differentiable matrices, the characteristic polynomial of which is decomposed into two relatively prime factors. Several examples are discussed.

Card 1/2

On Matrices Commutating With Their Derivative

SOV/140-59-4-5/26

The authors mention V.V. Morozov and N.P. Yerugin.

There are 10 references, 6 of which are Soviet and 4 Italian.

ASSOCIATION: LOMI imeni V.A. Steklova AN SSSR (LOMI imeni V.A. Steklov AS  
USSR)

Kazanskiy aviatsionnyy institut (Kazan' Aviation Institute)

SUBMITTED: August 12, 1958

Card 2/2

2/6  
Bogomolov, M. V. Universities, Geographical 1951  
Problems in Hydrogeology (Problema po hidrogeologii) (Moscow) 1951-1952  
Bogomolov, M. V., Z. V. Slepnev and L. P. Rukavishnikov  
problems. This book is intended for hydrogeologists and geographers.

This collection of articles on the hydrogeology of the Soviet Union is dedicated to Professor M. V. Bogomolov. The book consists of 12 articles, among which the author's own article is included. The topics discussed are: 1) the hydrogeological regime of the Ural region; 2) the hydrogeological regime of the Volga region; 3) the hydrogeological regime of the Caspian Sea; 4) the hydrogeological regime of the Black Sea; 5) the hydrogeological regime of the Donets Basin; 6) suspended sediments in running streams; 7) the

effects of agricultural practices on hydrogeology and ecology; 8) the hydrogeological regime of the Volga River; 9) the hydrogeological regime of the Dnieper River; 10) the hydrogeological regime of the Donets Basin; 11) the hydrogeological regime of the Kama River; 12) the hydrogeological regime of the Ob River. References.

Table of contents:

Bogomolov, M.V. Investigating the Spots of Movement of Flood Waters 43  
Bogomolov, M. V. Problems of Geopetroleum Interpolation 53  
Bogomolov, T. L. Problems in Expanding Hydrogeological Series 63  
Gorbunov, V. S. and V. I. Poltorikov. River Bed Aggregates in the Middle Reach of the Angara River 69  
Tsvetov, F. V. Characteristics of Stream Level Status Regime 79  
Spirka, P. S. Marine Flooding as Related to Some Shifting 89  
Card 3/6

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

*CHEBOTAREV, N.P.*

CHEBOTAREV, N.P.

Investigating the elements of the flood hydrograph, their variability, and safety. Trudy Ukr. NIGMI no.9:121-136 '57. (MIRA 11:1)  
(Floods)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

The Subterranean Water Discharge and the Variation  
of the Annual Discharge SOV/50-59-1-7/20

variation of the annual discharge is overrated by the authors.  
They ignore the importance of the basin surface as a factor  
of the variation in annual precipitations. 5. The formula  
suggested for determining the coefficient of variation of the  
annual discharge in small basins does not consider all fac-  
tors, and may therefore lead to big errors. There are 7  
Soviet references.

Card 2/2

CHEBOTAREV, N.P.

Calculation of annual precipitation, evaporation, and runoff  
variations. Trudy UkrNIGMI no.19:136-148 '59.

(MIRA 13:4)

(Hydrology)

CHEBOTAREV, Nikolay Petrovich; SKVIRSKAYA, M.P., red.; YUNOVSKIY, Ye.B.,  
tekhn. red.

[Continental hydrology] Gidrologiia sushii. Kiev, Izd-vo Kiev-  
skogo univ., 1960. 378 p. (MIRA 14:11)  
(Hydrology)

CHEBOTAREV, N.P., doktor tekhn.nauk, prof.

Problem concerning the theoretical determination of the calculational  
(optimum) magnitude of assurance of maximum expenditures.

Izv. vys. ucheb. zav.; energ. 4 no.8:92-97 Ag '61.

(MIRA 14:8)

(Hydraulic engineering--Costs)

CHEBOTAREV, Nikoley Petrovich. Prinimali uchastiye: BLIZNYAK, Ye.V., doktor tekhn. nauk, prof., retsenzent [deceased]; APOLLOV, B.A., doktor tekhn. nauk, prof., retsenzent; BEFANI, A.N., doktor tekhn.nauk, prof., retsenzent; BYKOV, V.D., kand. tekhn. nauk, retsenzent; KALININ, G.N., red.; BELYAKOVA, Ye.V., red.; GEORGIYEVA, G.I., tekhn. red.

[Study of runoff] Uchenie o stoke. Moskva, Izd-vo Mosk. univ.,  
1962. 405 p. (MIRA 15:8)

(Runoff)

CHEBOTAREV, N.P.

New type of weir, its study and design. Trudy UkrNIGMI no.39:  
90-96 '63. (MIRA 16:7)

(Weirs)

SALAKHOVA, I.M.; CHEBOTAREV, G.N.

Solvability in a finite form of some systems of linear differential equations. Izv. vys. ucheb. zav.; mat. no. 3:230-234 '60.  
(MIRA 13:12)

1. Kazanskiy gosudarstvennyy universitet i Kazanskiy aviationskyy  
institut. (Differential equations, Linear)

CHEBOTAREV, N.G.; DOBROVOL'SKIY, V.A.

Applicability of the theory of ideals to algebra. Ist. mat.  
issl. no.14:539-550 '61. (MIR 16:10)

(Rings (Algebra))

CHEBOTAREV, G.N. (Kazan')

Rings of functions integrable with weight. Izv. vys. ucheb. zav.;  
mat. no. 5:133-145 '63. (MIRA 16:11)

CHEBOTAREV, G.P. (SShA)

Notes on a certain session. Osn., fund. i mekh.grun. 3 no.6:5:6  
'61. (MIRA 15:4)  
(Soil mechanics--Congresses)

L 63229-65 EEO-2/EWT(d)/FSS-2/EWT(l)/EWT(m)/FA/FA(b)/EWA(d)/T-2/EWP(h)/EWA/EED-2/  
EWA(g)/FCS(k)/EWA(c)

ACCESSION NR: AP5017032

UR/0209/65/000/007/0029/0032

AUTHOR: Petrov, S. (Military pilot first class, Engineer, Colonel); Chebotarev, I.  
(Engineer, Major) 38  
B

TITLE: Firing at ground targets from the L-29 aircraft

SOURCE: Aviatsiya i kosmonavtika, no. 7, 1965, 29-32

TOPIC TAGS: pilot training, aircraft cannon, gunnery training, gun sight, aircraft ammunition, aircraft/L-29 aircraft, ASP-3NM slash U gunsight)

ABSTRACT: In an article dealing with training in flying schools, the use of an L-29 aircraft equipped with an ASP-3NM/U gunsight for diving attacks on ground targets, using S-5M shells is discussed. The gunsight is designed for 12.7-mm bullets and 23-mm shells, the ballistic characteristics of which differ from the S -5M shell.

Card 1/5

L 63229-65

ACCESSION NR: AP5017032

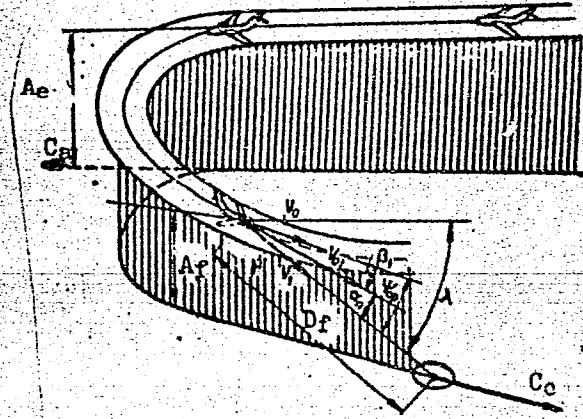
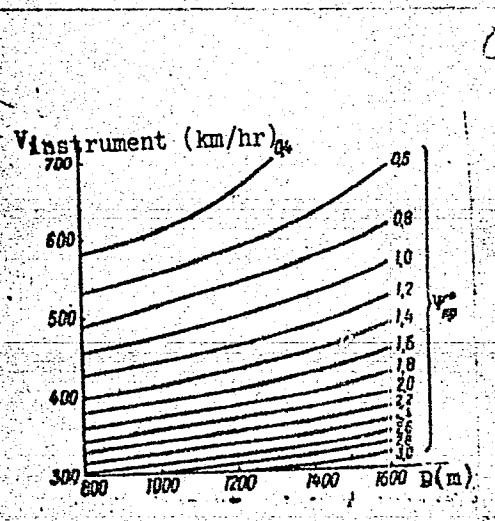


Fig. 1. Aiming system

$A_e$  - Entry altitude;  $C_p$  - auxiliary course;  
 $A_f$  - firing altitude;  $D_f$  - firing distance;  
 $C_c$  - combat course.

Card 2/5

Fig. 2. Correction for angle  $\psi$

63229-65  
ACCESSION NR: AP5017032

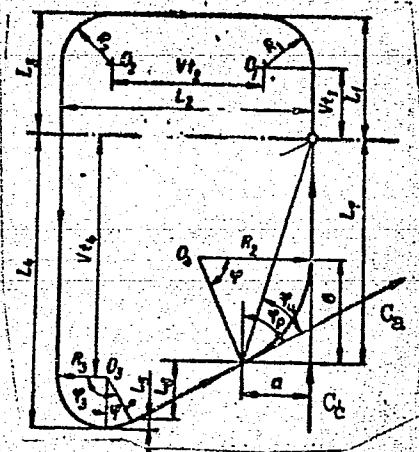


Fig. 3. Maneuver pattern for firing

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> - Radii of turns; t<sub>1</sub>, t<sub>2</sub>, t<sub>3</sub> - flying time between turns; V - flying speed; φ<sub>3</sub> - angle of the third turn; φ<sub>4</sub> - angle of the fourth turn; φ - angle at which targets sighted at beginning of fourth turn; C<sub>A</sub> - auxiliary course; C<sub>C</sub> - combat course.

Card 3/5

L 63229-65

ACCESSION NR: AP5017032

O

The recommended approach to the target is carried out as follows: altitude - not less than 1500 m; angle of diving attack - 30°; firing altitude - 600 m; range of fire - 1200 m (firing range is estimated by comparing the size of the target with the size of the range-finder reticle); speed of aircraft when firing - 430—450 km/hr.

To compensate for gravity drops and slip, the center of the reticle is displaced downward to the value of the correction for angle  $\psi$ , which is equal to the sum of angles  $\beta$  and  $\alpha$  (see Fig. 1); the total correction ( $\beta$  and  $\alpha$ ) depends on the dive angle, aircraft speed, and range when firing. A graph (see Fig. 2) shows the correction for angle  $\psi$  at a dive angle  $\lambda$  of 40°. The maneuver pattern is shown (see Fig. 3). The use of air brakes does not appreciably decrease speed; it does, however, set up vibration in the pedals, thus reducing the quality of aiming. Orig. art. has: 2 figures, 3 graphs.

Card 4/5

L 63229-65

ACCESSION NR: AP5017032

ASSOCIATION: none

SUBMITTED: OO

ENCL: OO

SUB CODE: WA, AC

NR REF SOV: OOO

OTHER: OOO

ATD PRESS: 4046-F

Ann  
Card 5/5

CHEBOTAREV, I. A.

USSR/Metals - Alsifer, Magnetic Properties 21 Nov 51

"On Relationship Between the Coercive Force and Particle Size of the Powders of Soft Magnetic Materials," Ya. S. Shur, T. D. Zotov, I. A. Chebotarev, Inst of the Phys of Metals, Ural Affiliate, Acad Sci USSR "Dok Ak Nauk SSSR" Vol LXXXI, No 3, pp 387-389, 1951

Powders of alsifer (9.4% Si, 5.6% Al, balance Fe) were used to study dependence of coercive force on size of powder grains and effect of stresses and temp on this relationship. Coercive force was high cold hardening during crushing and those annealed from 1,000° in high vacuum. Results are graphically represented and discussed. Submitted by Acad A. F. Ioffe 21 Nov 51.

PA 214T63

SOV/137-57-10-19046

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 88 (USSR)

AUTHOR: Chebotarev, I.A.

TITLE: The Desirability of Using Lightened Beams in the Manufacture  
of Flat Cars (O tselesoobraznosti primeneniya oblegchennykh  
balok dlya izgotovleniya zheleznodorozhnykh platform)

PERIODICAL: V sb.: Ratsionalizatsiya profiley prokata. Moscow, Profiz-  
dat, 1956, pp 174-177

ABSTRACT: If a lightened beam (LB) with a section suitable to assure a  
smaller moment of resistance were used to produce flat cars,  
the consumption of rolled metal per flat car could be cut by  
approximately 40 kg, and the reduction in the overall weight of  
a flat car would be ~ 350 kg. Were such a beam introduced,  
the annual saving at the Dneprodzerzhinsk Rolling Stock Plant  
would be ~1,400,000 rubles. A negative aspect of the econom-  
ical Nr 55 LB, as is the case with that now in use, is its inad-  
equate strength. To eliminate these shortcomings and cut the  
costs of production, the design office of the plant has developed  
3 variants of the LB. The economies inherent in these new  
shapes are obvious: The ratio of the moment of resistance to

Card 1/2

SOV/137-57-10-19046

The Desirability of Using Lightened Beams in the Manufacture of Flat Cars

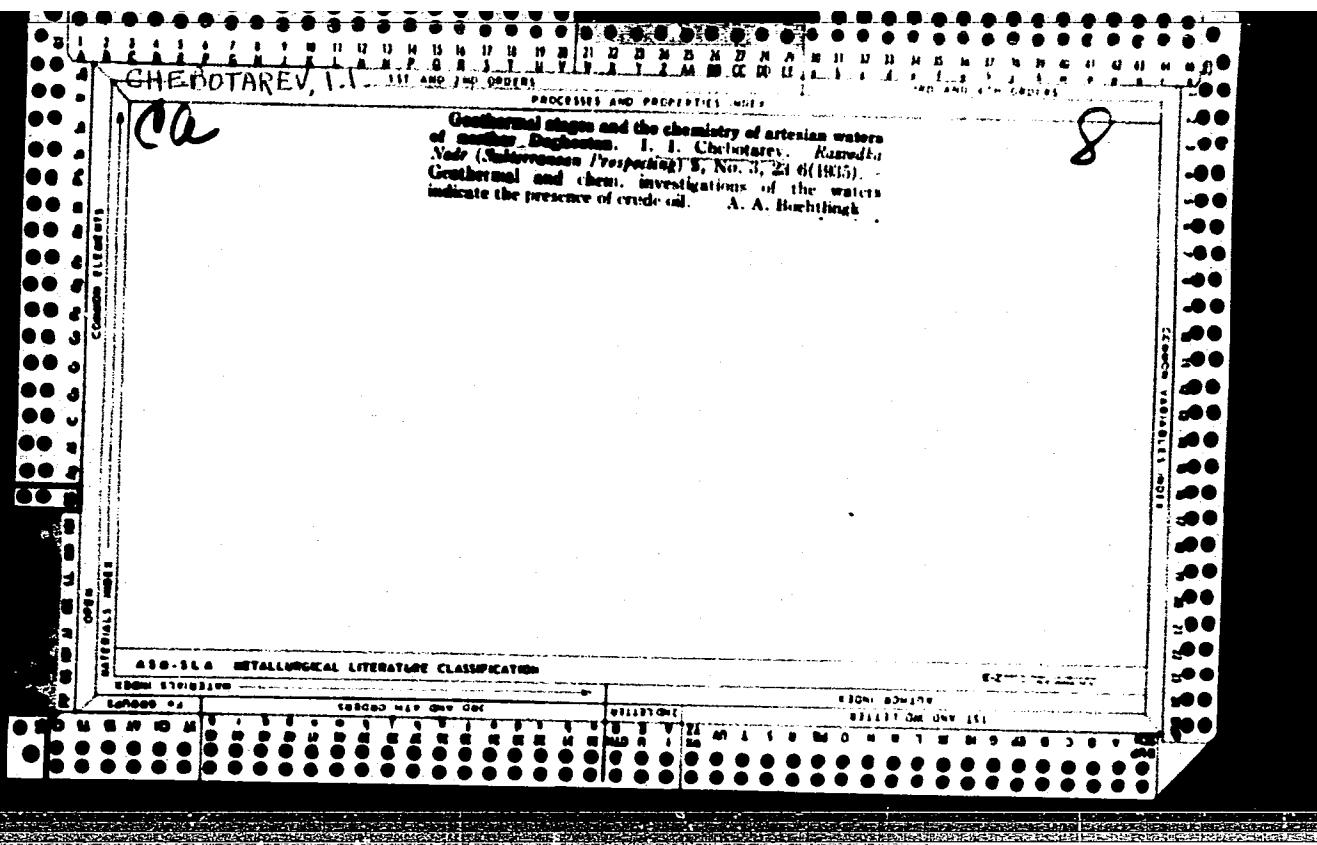
The running weight per meter for the Nr 55 beam (B) meeting the standard now in force is 21.8, that for the second variant is 24.7, and that for the third is 25.2. Utilization of these B for flat cars would cut the man-hours required by 8 hrs 27 min per flat car; this would make it possible to eliminate one man per shift per flat car or 20 men per shift in mass production. The third variant of the B is the most rational. With its use the gross weight of a flat car may be cut by 479 kg, the rolled metal used by 510 kg, and the annual saving of metal by the plant would be 3060 t. In addition, the lightening of the car weights would result in considerable operating economies. Reduction in hauling costs by means of flat cars made of these beams is calculated to be 0.54%.

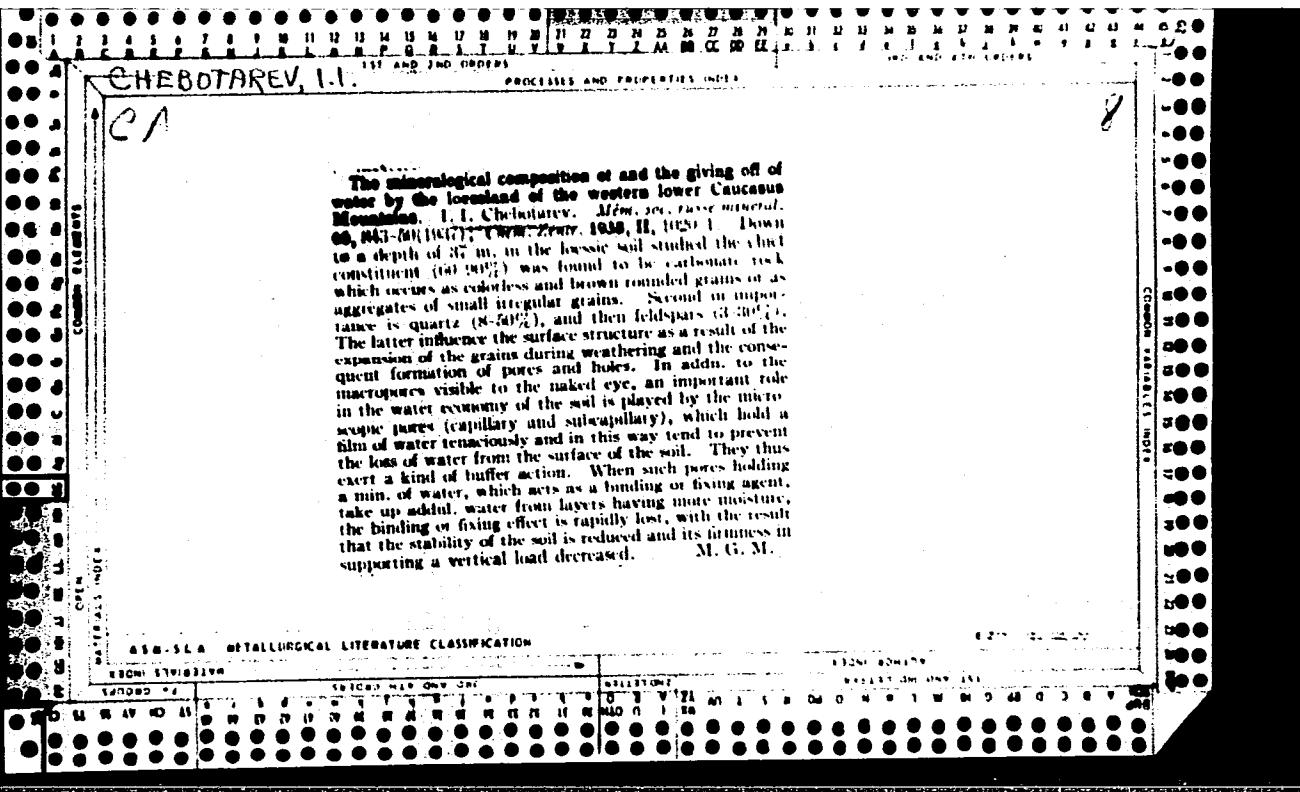
B.Ye.

Card 2/2

CHEBOTAREV, I.A.; FRENKEL', E.I.

Sixty ton capacity flat cars having new board locks. Biul.tekh.-ekon.  
inform. no.7:70-71 '58. (MIRA 11:9)  
(Railroads--Freight cars)





CHEBOTAREV, I. I.

MP  
/ Metamorphism of natural waters in the crust of weathering. II. I. I. Chebotarev. *Geochim. et Cosmochim. Acta* 8, 137-70(1955); cf. preceding abstr.—A summary of factual data is presented covering the fields of hydraulics and salinity of waters, subterranean waters in oil fields, chem. compn. of natural brines, salt domes and assoc'd. waters, subterranean waters of volcanic assocn., salinity of water assoc'd. with metalliferous deposits, and salinity of waters from sedimentary, metamorphic, and igneous rocks. 68 references.  
Gerald M. Friedman

CHEBOTAREV, I. I.

Metamorphism of natural waters in the crust of weathering. III. I. I. Chebotarev. *Geochim. et Cosmochim. Acta* 8, 198-212 (1955).—A discussion of data (cf. preceding abstrs.) from the hydrological approach; a cycle is formulated relating salinity, hydrochem. facies and the geochemistry of chloride, sulfate, and bicarbonate waters. J. J. B.

CHEBOTAREV, I.I.

Circuit for self-starting of low-voltage electric motors.  
Prom. energ. 16 no.8:35-36 Ag '61. (MIRA 14:9)  
(Electric motors)

CHEBOTAREV, Ivan Konstantinovich; GOLOSOV, A., red.; TSIVUNIN, I.,  
tekhn. red.

[New developments in the floating of lumber down the rivers  
of the Komi A.S.S.R.] Novye v organizatsii splava po rekam  
Komi ASSR. Syktyvkar, Komi knizhnoe izd-vo, 1962. 58 p.  
(MIRA 15:11)  
(Komi A.S.S.R.—Lumber—Transportation)

MAKHNOVSKIY, Ivan Konstantinovich; ROMANENKO, Klavdiya Yevstaf'yevna;  
CHEBOTAREV, Ivan Nikolayevich; YUDENICH, V.P., red.;  
KOMEROVA, V.I., tekhn. red.

[Nut and fruit forests and their protection against pests  
in Kirghizistan] Orehovo-plodovye lesa Kirgizii i okhrana  
ikh ot vreditelei. Frunze, Kirgizskoe gos.izd-vo, 1963. 67 p.  
(MIRA 17:3)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, I. P. (Professor)

"Rationalization of the Distribution Density of Meteorological Stations," Works of  
Voronezh State Institute, Vol XIII, 1946 (9-10).  
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

CHABOTAREV, I.T., dotsent; LIDDELEV, V.K., vettekhnik.

Structural characteristics of a cow's six-teat udder. Veterinariia 30 no.4:41-45 Ap '53. (MIRA 6:4)

1. Moskovskaya veterinarnaya akademiya.

CHIBOTAREN, I.T., kandidat biologicheskikh nauk.

Mechanism of air expulsion in coughing. Veterinariia 33 no.10:73-74  
O '56.  
(MLRA 9:10)

1. Moskovskaya veterinarnaya akademiya.  
(Cough)

*Chebotarev, I. T.*

USSR/ Farm Animals. Cattle.

Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40424.

Author : Chebotarev, I. T.

Inst : Not given.

Title : On the Individual Variations of the Udder in  
Cows.

Orig Pub: Zhivotnovodstvo, 1957, No 7, 60-61.

Abstract: Two types of the udder have been distinguished:  
that with large teat cisterns and that with  
small ones. There exist also variations de-  
pending on the diameter of the milk ducts and  
the place where they draw together, as well as  
on the size of the quarters of the udder. The  
technology of milking (hand-~~or~~ machine-milking)  
should be determined in relation to the form  
and peculiarities of the udder.

Card 1/1

GUSEVA, L.A.; ZDANOVSKAYA, Ya.L.; KRIVOSHEINA, N.A.; KHRUSTALEVA, I.V.;  
CHEBOTAREV, I.T.; DREVLYANSKAYA, N.I., red.; PROKOF'YEVA, L.N.,  
tekhn. red.

[Manual for laboratory work in the anatomy of farm animals] Po-  
sobie k prakticheskim zaniatiiam po anatomii sel'skokhozaiistven-  
nykh zhivotnykh. Moskva, Sel'khozizdat, 1962. 170 p.  
(MIRA 15:7)

(Veterinary anatomy)

CHETBOTAREV, I. V.

"Certain Problems of Laying the Water Supply Pipes in Saline Grounds  
and Measures Against Corrosion." Sub 11 Jun 47, Moscow Order of Lenin Inst  
of Railroad Engineers imeni I. V. Stalin. Candidate of Technical Sciences.

Dissertations presented for degrees in science and engineering in Moscow  
in 1947

SO: Sum No. 457, 18 Apr 55

CHEBOTAREV, I.V., kandidat tekhnicheskikh nauk; IYEVLEV, M.V., inzhener

Sealing bell-mouthed cast iron pipe joints with expansion cement.  
Transp.stroi.5 no.6:10-12 Ag'55. (MLRA 8:12)  
(Water pipes)

MOSKVIN, G.N.; CHEBOTAREV, I.V., kand. tekhn. nauk, red.; KHITROV,  
P.A., tekhn. red.

[Operation of railroad water supply] Ekspluatatsiia zhelezno-  
dorozhnogo vodosnabsheniia. Moskva, Zheldorizdat, 1951. 542 p.  
(MIRA 16:7)

(Railroads--Water supply)

ЧЕБОТАРЕВ, И. Я.

Chebotarev, I. Ye.

"Some data on the technology and veterinary-sanitary expertise of goat meat." Min Higher Education USSR. Kazan' Veterinary Inst imeni N. E. Bauman. Saratov, 1956. (Dissertation For the Degree of Candidate in Veterinary Sciences)

Knizhnaya letopis'

No 34, 1956. Moscow.

OSETROV, A., dotsent; TRIFONOVA, T., dotsent; CHEBOTAREV, I., assistant;  
AKSEMOV, N., assistant

Veterinary examination of carcasses of sheep affected by disease  
caused by feather grass. Mias.ind.SSSR 30 no.6:32-34 '59.  
(MIRA 13:4)

1. Semipalatinski zooveterinarny institut.  
(Sheep--Diseases)

CHEBOTAREV, I. Ye., AKSENOV, N. S., OSETROV, A. A. and TRIFONOVA, T. K.

"Feather grass disease in sheep in Kazakhstan."

Veterinariya, Vol. 37, No. 5, 1960, p. 37

Chebotarev -  
Assistant, Semipalatinsk Zoorvt. Inst

OSETROV, A.A., dotsent; TRIFONOVA, T.K., dotsent; CHEBOTAREV, I.Ye.,  
assistant; AKSENOV, N.S., assistant

Examining the carcasses of sheep injured by feather grass.  
Veterinariia 41 no.7:97-98 Jl '64. (MIRA 18:11)

1. Semipalatinskiy zooveterinarnyy institut.

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8

CHEBOTAREV, K.

42413: CHEBOTAREV, K. sozialcheskoye sel'skoye khozyaystvo na novom pod'eme. pogranichnik, 1948, No. 22 s 17-24.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47. 1948

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308220008-8"

CHEBOTAREV, K.

25472

Tempy Razvitiya Narodnogo Khozyaystua SSSR. Molodoy Bol'shevik 1949, No. 14,  
S. 24-33

SO: LETOPIS' No. 34

MERKULOV, V.A., gornyy inzh. (g.Shakty); CHIBOTAREV, K.A., gornyy inzh.  
(g.Shakty)

Dust control in the Rostevugol' Combine mines. Ugol' 35 no.5:21-  
23 My '60. (MIRA 13:?)  
(Donets Basin--Mine dusts)

*Chebotarev, Koval*

USSR/UKRAINE/General Section - History, Classics,  
Personalities

A-2

Abs Jour : Referat Zhurn. Biol. No 16, 25 Aug 1957, 67864

Author : Chebotarev, Koval

Title : Aleksandr Prokofevich Markewich (50th anniversary)

Orig Pub : Tr. In-tu Zool. AN URSR, 1956, 13, 101-109

Abstract : No abstract.

Card 1/1

- 31 -

~~CHEBOTAREV, KONSTANTIN ALEKSEANDROVICh~~

TORSKIY, Pavel Nikolayevich; RABICHEV, Aleksandr Ivanovich; ~~CHEBOTAREV,~~  
~~Konstantin Alekseevich; KHEYFITS, S.Ya., etvetstvennyy redaktor;~~  
~~TYUTYUNIKOVA, N.A., redaktor izdatel'stva; NADEINSKAYA, A.A., tekhniches-~~  
~~kiy redaktor.~~

[ Elimination of dust from coal mines] Obespylivanie ugol'nykh shacht,  
Moskva, Ugletekhnizdat, 1956. 298 p.  
(Coal mines and mining--Safety measures)  
(Mine dusts)

CHEBOTAREV, K.S.

Effectiveness of pantothenic acid in the treatment of herpes  
zoster. Sov.med. 24 no.3:140-141 Mr '61. (MIRA 14:3)  
(HERPES ZOSTER) (PANTOTHENIC ACID)

DAUTOV, R.; CHEBOTAREV, L., inshener-konstruktor

Fluid connection clutch for compressors of 6L-275 engines (Skoda).  
Rech.transp. 20 no.6:34-35 Je '61. (MIRA 14:6)

1. Pervyy mekhanik teplokhoda "Akademik Tyurin" (for Dautov).
2. Podtesovskaya remontno-ekspluatatsionnaya baza (for Chebotarev).  
(Marine engines)

CHEBOTAREV, L.Ye., assistent

Some data on the technology and veterinary and hygienic skills related to the processing of goat meat. Trudy AZVI 10:422-428 '57. (MIRA 12:8)

1. Iz kafedry veterinarno-sanitarnoy ekspertisy i tekhnologii produktov zhivotnovodstva Semipalatinskogo zooveterinarnogo instituta (zav.kafedroy - N.D.Titarenko).  
(Goats) (Meat inspection)

MERKULOV, V.; CHEBOTAREV, M.

Coordinate the work of various types of transportation. Rech.  
transp. 22 no.4:8-10 Ap '63. (MIRA 16:4)

1. Chlen Gosplana RSFSR (for Merkulov). 2. Zamestitel' nachal'-  
nika otdela transporta i svyazi Gosplana RSFSR (for Chebotarev).

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